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Should cable television channels be offered à la carte?

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11 January 2016

Organisation of Markets (<http://microeconomicinsights.org/category/organisation-of-markets/>)

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Should cable television channels be offered à la carte? (<http://microeconomicinsights.org/should-cable-television-channels-be-offered-a-la-carte/>)

Why do cable TV companies force people to purchase channels they don't even like? Wouldn't consumers be better off if they could purchase channels individually rather than only as part of large packages? Not necessarily. This research shows that channel prices would be higher on average if they were offered individually, and if the increase in prices is large enough it can more than offset the benefits of unbundling.

Senator John McCain recently proposed a bill that would force cable television providers to offer consumers the opportunity to purchase TV channels individually. Presently, consumers must purchase packages of many channels, many of which they wouldn't purchase otherwise, and this bill would force cable companies to offer channels on an unbundled, or *à la carte*, basis or lose other coveted regulatory protections.[1] Senator McCain is a long-time proponent of *à la carte* in television markets, once quipping, "When I go to the grocery store to buy a quart of milk, I don't have to buy a package of celery and a bunch of broccoli. I don't like broccoli!"[2]

It's easy to see why *à la carte* catches policymakers' interest. Prices for cable service have risen far faster than inflation for decades, even on a quality-adjusted basis, and in 2011 averaged almost \$57.50 for the most

popular bundle, despite the nominal growth of competition from satellite and telephone company entrants.[3] At the same time, Nielsen has found that the average household watches only 16 of the more than 100 channels available to them.[4] Might not letting households buy only those channels they are interested in lead to lower consumer bills?

“When I go to the grocery store to buy a quart of milk, I don’t have to buy a package of celery and a bunch of broccoli. I don’t like broccoli!”

In 2004, the FCC concluded that *à la carte* would increase consumer bills between 14–20 percent, only to turn around in 2006 and conclude that its first analysis was flawed and that many consumers could instead be better off under *à la carte*.^[5]

Our research (Crawford and Yurukoglu (2012)) takes a fresh look at this question by drawing upon insights from two literatures in economics. The first analyzes the welfare costs of bundling when costs of production are the same for bundled and unbundled goods (Stigler (1963), Adams and Yellen (1976)). At first pass, it seems reasonable to assume that the costs of providing cable TV are the same for bundled and unbundled channel offerings, but that turns out to be a questionable assumption for cable TV services.

The second literature explains why. This research shows how input costs are determined when an oligopolist – a firm in an industry with a small number of producers, each with large market shares – must bargain with other oligopolists over the price it pays for its inputs. This description of ‘bilateral bargains between upstream and downstream oligopolists’ (Horn and Wolinsky (1988)) fits the cable industry well. Cable TV providers have large market shares, and they must negotiate with large, economically powerful content providers such as Time Warner or ABC Disney for programming.

“Prices for cable service have risen far faster than inflation for decades, even on a quality-adjusted basis”

Understanding the influence of both of these effects, and especially how *à la carte* leads to renegotiation and changes in the costs of providing programming, is essential in determining the likely effects of cable *à la carte*.

Intuition for our analysis

The key insight of the fixed input cost literature is that bundling can make consumers worse off. In more technical terms, it can allow firms to capture almost all of the consumer surplus (consumer surplus is the difference between what someone is willing to pay for a good, and what they actually pay).

Suppose, for example, that there are two consumers and two cable channels. The first consumer is willing to pay \$15 per month for channel 1, but only \$10 for channel 2. The second consumer is just the opposite. Channel 2 is valued at \$15, but channel 1 is only valued at \$10. Assume the cost of providing the services is the same for bundled and unbundled offerings so that all that the firm cares about is maximizing revenue.

If the cable company sells the channels individually, it will only be able to charge \$10 for each channel, and its revenue will be \$40 (each consumer would purchase each channel). If it charges more than \$10 for either channel, say \$15 for each, its revenue would fall to \$30 since each consumer would only purchase one of the two channels, the one valued at \$15 (any price over \$10 would have similar effects). Thus, the cable provider maximizes its profit by charging \$10 for each channel. In this case, each consumer gets a bargain, a channel they’d pay \$15 for, but receive for \$10. In technical language, total consumer surplus is $(\$15 - \$10) + (\$15 - \$10) = \$10$.

“Nielsen has found that the average household watches only 16 of the more than 100 channels available to them. Might not letting households buy only those channels they are interested in lead to lower consumer bills?”

Now suppose the cable provider bundles the channels. Notice that each consumer is willing to pay up to \$25 for the two channels together (based upon the \$15 willingness to pay for one channel and \$10 for the other). Thus, the cable company should charge \$25 for a package of both channels with no chance to purchase the channels individually. With bundling, total revenue will rise to \$50. Consumers end up paying more, \$50 instead of \$40, for exactly the same TV services. As a consequence, the \$10 in consumer surplus falls to zero, and the bargains go away. In essence, charging \$25 allows the cable TV provider to extract the highest possible price the consumer is willing to pay for each channel, a practice known as price discrimination.

If there are more consumers, more channels, and more variation in preferences, the results differ somewhat, for example if consumer 1 only valued channel 1 at \$14 the bundle would have to be offered at \$24 instead of \$25 and a small amount of consumer surplus would remain. More generally, the set of channels that consumers purchase will differ for the bundled and unbundled cases making the analysis of the effects more difficult, but the essence of the results stays the same. Consumers are better off when they are allowed to choose channels individually. This insight led many researchers – and policymakers – to conclude that *à la carte* offerings could benefit consumers.

“In 2004, the FCC concluded that *à la carte* would increase consumer bills between 14–20 percent, only to turn around in 2006 and conclude that its first analysis was flawed and that many consumers could instead be better off under *à la carte*.”

The insights of the bargaining literature give pause, however. Ignoring bundling for the moment, this literature shows that it's possible for costs to cable and satellite operators would be higher for *à la carte* than that for bundling. For example, ESPN now receives more than \$5 per subscriber per month for being included in a bundle with other widely available cable channels. If only half of the households that currently buy the bundle were willing to pay separately for ESPN, they would very likely try to negotiate with cable and satellite operators for a (possibly much) higher amount per subscriber. For many distributions of channel preferences, costs to cable and satellite operators would be higher, increasing final prices to households. Thus, while *à la carte* at fixed costs offers benefits to consumers, it may also lead to higher

costs and higher prices per channel, leaving the net benefits uncertain.

Estimating a model of the cable television industry

The key piece of information that is needed to determine which of the two effects is more important is how much costs and prices change under *à la carte*. If the increase is modest, the insights of the fixed-cost bundling literature would likely obtain and *à la carte* would be consumer- and total welfare-enhancing. If input costs rise considerably, however, prices under *à la carte* will also be high, making it much more likely to be welfare-reducing. How much input costs rise under *à la carte* in practice is highly dependent upon the structure of preferences for individual channels and the relative bargaining power of content providers and content distributors. These were the focus of the econometric estimation and counterfactual experiments conducted in our paper.

In order to measure the effects of unbundling cable television channels, we built and estimated an econometric model of the cable and satellite television industry, identified demand curves for individual channels, cable system marginal costs, and bargaining parameters between television channel conglomerates and cable and satellite systems that were generating the outcomes we saw in our data. We then used these “structural parameters” to predict outcomes in a world where channels were required to be offered *à la carte*. This structural approach was necessary both because there are no markets worldwide where channels are sold *à la carte* and because understanding the effects of such a policy required modeling the equilibrium responses of both channel conglomerates and distributors.

“Should cable television channels be offered *à la carte*? Based on the analysis in our paper, we would not advocate for it.”

The estimated model yielded plausible results. The estimated demand curve for CNN exceeded that of Animal Planet, which exceeded that of the Speed Channel (with plausible patterns for the other 46 channels in our analysis). Furthermore, those that liked ESPN also liked ESPN2, as did those who liked Fox Sports, while those that liked MTV disliked SoapNet. Median marginal costs varied from an estimated \$11.08 for basic cable bundles to \$20.74 for larger packages and these estimated marginal costs were lower for both larger and vertically integrated operators.

Estimated bargaining parameters revealed more bargaining power for large channel conglomerates like Time Warner (which owns CNN and TNT) and ABC Disney (which owns ESPN and the Disney Channel) than for big cable providers like Comcast, but that situation was reversed for small channel conglomerates like Rainbow Media (which owns a pre-“Walking Dead” AMC and WE) or individual channel owners like Oxygen and the Weather Channel. Similar patterns with less estimated bargaining power arose for small cable systems and satellite systems.

Predicting the effects of *à la carte*

To evaluate the impact of *à la carte*, we considered outcomes in a simplified world in which one large and one small cable system served separate markets, each with a demographic distribution of consumers like that in the whole of the United States, and competed with a “national” satellite operator serving both markets.

The results both confirmed the predictions of the existing theory and demonstrated the importance of accounting for bargaining and renegotiation in understanding the effects of à la carte in television markets. If input costs to cable systems could stay the same in an à la carte world, then indeed we found that consumers would be substantially better off. They would choose to buy only those channels that they like (with portfolios differing across households), almost no households would be excluded from the market, and their average spending on television would fall by an estimated 23.8%.

Allowing for renegotiation in an à la carte world, however, had an important effect. We found that while the renegotiated input costs would fall for some channels, they would rise for most, with a total increase across our 49 major cable channels of 103.0%, pushing up per-channel prices to consumers in an à la carte world. As a consequence, consumers would buy and watch fewer channels, and their average spending would rise by an estimated 2.2%.

“We found that while the renegotiated input costs would fall for some channels, they would rise for most, with a total increase across our 49 major cable channels of 103.0%, pushing up per-channel prices to consumers in an à la carte world. As a consequence, consumers bought and watched fewer channels, and their average spending was estimated to rise by 2.2%.”

These conclusions came with some important caveats. We assumed away technical, administration, and/or marketing costs for both channels and distributors of offering à la carte. Similarly, we assumed that the number and identity of channels currently offered and their qualities would be the same. Absent bundles, à la carte opponents argue some channels might not make it. That might not be bad for consumers, however. High-quality content could migrate to other channels, lowering total industry fixed costs. Quality in an à la carte world could also increase. Evaluating these effects remain open areas for research.

Policy implications

Should cable television channels be offered à la carte? Based on the analysis in our paper, we would not advocate for it. We find that some households would win and others would lose, but that on average they would be no better off in an à la carte world. Given the tremendous uncertainty associated with such a regulatory intervention, we would want more convincing evidence of

consumer benefits before supporting it.

More work needs to be done before a definitive answer is possible. A richer analysis involving channel entry, exit, and quality choice could yet convince us that such factors favor à la carte, particularly as they relate to the ongoing increase in fees paid for sports rights, a large and growing factor in the cost of television service worldwide.

Footnotes

[1] Television Consumer Freedom Act of 2013

[2] Washington Post, March 29, 2004.

[3] Crawford, 2014, “Cable Regulation in the Internet Era,” Chapter 3 in Rose, ed., *Economic Regulation and Its Reform: What have we Learned?*, University of Chicago Press. Crawford, Kwerel, and Levy, 2008, “Economics at the Federal Communications Commission, 2007–08”, *Review of Industrial Organization*, v33, Fig 6, p205. FCC 2011 Cable Price Survey, Attachment 4, p11.

[4] Nielsen, June 6, 2008 press release.

[5] “Report on the Packaging and Sale of Video Programming Services to the Public”, November 18, 2004, p6. “Further Report on the Packaging and Sale of Video Programming Services to the Public”, February 9, 2006, p5.

Further reading

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